

REMARKS

The following remarks are responsive to the Office Action mailed August 11, 2004.

Applicant thanks the Examiner for the careful examination given to this application.

Claims 1-3, 5, 7, 13, 15, and 17-20 have been amended to clarify the invention and to improve form. Claims 4, 8-12, 14, and 16 have been canceled without prejudice. Applicant does not concede the subject matter of the claims prior to amendment or to the canceled claims, and reserves his right to pursue such subject matter in any continuation application.

Claims 21-32 have been newly added, and, as set forth below, these claims are distinguishable over the cited art of record.

For at least the reasons set forth below, Applicant traverses each of the Examiner's rejection in the Office Action mailed August 11, 2004.

35 U.S.C. § 102(e) Rejection to Mathieu

The Examiner rejected claims 1-4, 7-10, 12-19 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,616,966 to Mathieu *et al.* ("Mathieu"). Claims 4, 8, 9, 10, 12, 14, and 16 have been canceled and the rejection to those claims is rendered moot.

In order for Mathieu to anticipate the claims, Mathieu must disclose each and every element of the claims. Regarding independent claim 1, Mathieu fails to disclose at least "a plurality of probe pins supported by the probe base, each of the probe pins comprises an elongated arm body, wherein at least part of the elongated arm body is bonded with the probe base."

Instead, Mathieu discloses probe pins 760A and 760B having beam portions 745A and 745B supported by posts 730A and 730B that are attached to a probe base 705. The beam portions 745A and 745A, however, do not have any portion or part that is bonded with the probe base 705. (*See, e.g.*, Mathieu, FIGS. 26a and 26b; Col. 24, ll. 17-52).

Therefore, Mathieu fails to anticipate each and every element of claim 1. Since claims 2, 3, 5 and 7 depend on claim 1, Mathieu fails to anticipate those claims for the same reasons as claim 1. Accordingly, claims 1, 2, 3, 5 and 7 are patentable over Mathieu.

Regarding independent claim 13, Mathieu fails to disclose at least “a plurality of probe pins each having an elongated arm portion and a generally tetrahedral probe pin tip, wherein at least a portion of the elongated arm portion is bonded with the probe base.” Independent claim 18 recites similar limitations of “a probe pin body that is elongated and having at least a portion bonded with a base unit.”

As noted above, Mathieu discloses beam portions 745A and 745B having no part or portion bonded with the probe base 705. Therefore, Mathieu fails to anticipate each and every element of claims 13 and 18. Since claims 15 and 17 and 19 and 20 depend on claims 13 and 18, respectively, Mathieu fails to anticipate those claims for the same reasons as claims 13 and 18. Accordingly, claims 15 and 17 and 19 and 20 are patentable over Mathieu.

35 U.S.C. § 103(a) Rejection to Mathieu and Di Stefano

The Examiner rejected claims 5, 6, 11 and 20 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mathieu in view of U.S. Patent No. 6,771,084 to Di Stefano (“Di Stefano”). Claims 6 and 11 have been canceled and the rejection to those claims is rendered moot.

Applicant respectfully submits that Di Stefano fails to cure the deficiencies of Mathieu with respect to independent claims 1 and 18. In particular, Di Stefano, in FIG. 5, discloses a probe pin extension arm 82 having a probe tip 81 that is supported by posts 85 and 89. Similar to Mathieu, the probe pin extension arm 82 is not bonded with the a probe base 84, but is supported by the posts 85 and 89. (*See, e.g.*, Col. 6, ll. 18-49).

Therefore, neither Mathieu nor Di Stefano individually or combination disclose or suggest each and every element of claims 1 and 18. Moreover, neither Mathieu or Di Stefano provide a motivation to combine with each other that discloses or suggests each and every element of the claims. Accordingly, claims 1 and 18 are patentable over Mathieu and Di Stefano. Since claims 5 and 20 depend on claims 1 and 18, respectively, claims 5 and 20 are patentable over Mathieu and Di Stefano for at least the same reasons as claims 1 and 18.

Conclusion

Applicant respectfully submits that the new claims 21 through 32 are distinguishable over the cited art of record. For example, new independent claim 21 recites, *e.g.*, a flexible circuit board coupling probe pins for testing. New independent claim 26 recites, *e.g.*, forming a plurality of pin cavities in a semiconductor substrate and each pin cavity having an elongated body section. New independent claim 28 recites, *e.g.*, forming a first metal layer in the elongated body section of each pin cavity. Finally, new independent claim 30 recites, *e.g.*, attaching a part of the elongated body section of the metal probe pins to a probe base, which is not disclosed or suggested by the cited art of record. At least these elements of the new claims are not disclosed or suggested by the cited art of record.

In view of the foregoing remarks, Applicant requests the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

If the Examiner does not agree that the application is in condition for allowance, Applicant requests the Examiner to call S.H. Michael Kim at 650-833-4726 to schedule an interview.

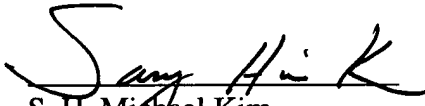
Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 50-1390.

SHAW PITTMAN LLP
1650 Tysons Boulevard
McLean, VA 22102
Tel: 650-833-4700

Respectfully submitted,

Date: February 8, 2005

By:


S. H. Michael Kim
Registration No. 40,450

MK/lis

Customer No. 28970

CERTIFICATE OF MAILING

EXPRESS MAIL NO: ED 273 524 891 US

I hereby certify that this Amendment and the accompanying Petition for Extension of Time is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 in an envelope addressed to: The Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Date: February 8, 2005


Michael Huntsman